ORIGINAL

U S WEST, Inc.
Suite 700
1020 Nineteenth Street, NW
Washington, DC 20036
202 429-3134
FAX 202 296-5157

Elridge A. Stafford
Executive Director-
Federal Regulatory

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

November 16, 1999

EX PARTE

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 Twelfth Street, SW, TW-A325
Washington, D.C. 20554

RE: Service Rules for the 746-764 and 776-794 MHz Bands,
WT Docket No. 99-168

Dear Ms. Salas:

Please be advised that on November 15, 1999, on behalf of U S WEST Wireless, LLC, Professor Peter Cramton, an auction expert from Market Design, Inc., and the undersigned met with Kathleen O'Brien Ham, Gary Michaels, Jim Schlichting, Stan Wiggins and Mark Rubin of the Wireless Telecommunications Bureau to discuss issues concerning the above-captioned proceeding. Attached hereto is a copy of the presentation material that was distributed and discussed at this meeting.

In accordance with Section 1.1206(b)(2) of the Commission's rules, the original and one copy of this letter and attachment are being filed with your office. Acknowledgement and date of receipt of this transmittal are requested. A duplicate of this letter is included for this purpose.

Please contact me at (202) 429-3134 should you have any questions concerning this matter.

Sincerely,

Elridge Stafford

Attachment

cc: Ms. Kathleen O'Brien Ham
Mr. Gary Michaels
Mr. Mark Rubin
Mr. Jim Schlichting
Mr. Stan Wiggins

Design of the 60-69 Channel Auction

Peter Cramton
Professor of Economics, University of Maryland
President, Market Design Inc.
peter@cramton.umd.edu www.cramton.umd.edu
www.market-design.com
November 15, 1999

commenting on behalf of
U S WEST Wireless, L.L.C.

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Outline

- Design objectives
- Recommendations
- Design issues
  - Band plan
  - National license or national bid
  - Spectrum cap
  - Incumbents
- Conclusions

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Design Objective

- Primary objectives
  - Efficiency
    - Place scarce spectrum in the hands of those that can use it best
  - Competition
    - Enhance competition in the provision of wireless services
    - Promote development of innovative services
- Secondary objectives
  - Diversity
    - Encourage new entry and a diversity of service providers
  - Revenues
    - Receive the market value for the spectrum

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Design Issues

1. Band plan
2. National license or national bid
3. Spectrum cap
4. Incumbents

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Recommendations

- Allocate the 36 MHz in 20/10/6 band plan
  - One 20 MHz national license
  - One 10 MHz band carved into 52 MEA licenses or 12 REAG licenses
  - Remaining 6 MHz for services capable of protecting public safety operations
  - National 20 MHz license facilitates entry of a new nationwide competitor
    - Minimum efficient size for new entrant is 20 MHz
    - Alternatively, allow national bids for 20 MHz band, which is licensed on a MEA or REAG basis
  - REAG or MEA 10 MHz licenses provides supplement spectrum for 3G
- Apply spectrum cap to 20 MHz national license
  - Enhances competition in the market for mobile voice and data services
  - Exempt 10 MHz band from spectrum cap to allow larger carriers and incumbents to meet needs for 3G transition and additional capacity
- Encourage efficient relocation of spectrum incumbents
  - Include channel 59 broadcasters in voluntary relocation too to allow use of channels 60-62

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Design Issue 1: Band Plan

- Enable a new nationwide competitor
  - New entrant could introduce a full range of voice and data services, including innovative high speed data applications
  - National license provides efficiencies of a nationwide system, enabling new entrant to compete effectively with incumbent nationwide services
  - Minimum efficient size for new entrant is 20 MHz
- Provide spectrum to meet needs for 3G transition or for supplemental capacity
  - Minimum efficient size for 3G and supplemental capacity is 10 MHz
  - Could be disaggregated by winner for unpaired use
- Provide interference protection and accommodate narrowband use
  - Use remaining spectrum for services capable of protecting public safety operations
  - Do not restrict participation for this remaining spectrum
- Simplest auction design and implementation

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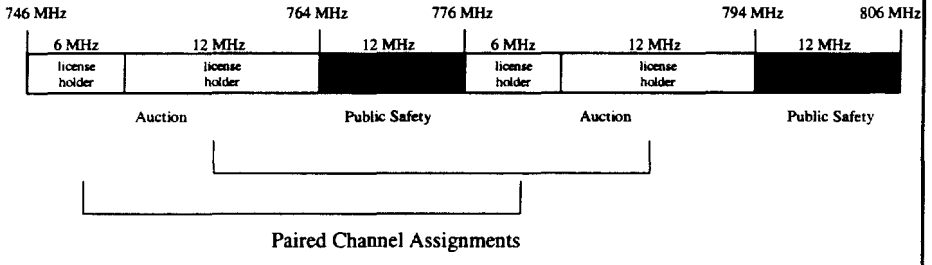
Band Plans

3G Technologies are being developed around 5 MHz chunks of paired spectrum (5 MHz for WCDMA, multiples of 1.25 MHz for cdma2000). Public Safety has expressed considerable concern regarding interference. Consequently, it may be worth considering to either auction a paired 6 MHz and a paired 12 MHz license with emission restrictions as shown in the lower figure. Two other options are possible with the intent to offer paired 1 to 1.5 MHz channels for services capable of protecting public safety operations.

US WEST Original Band Plan



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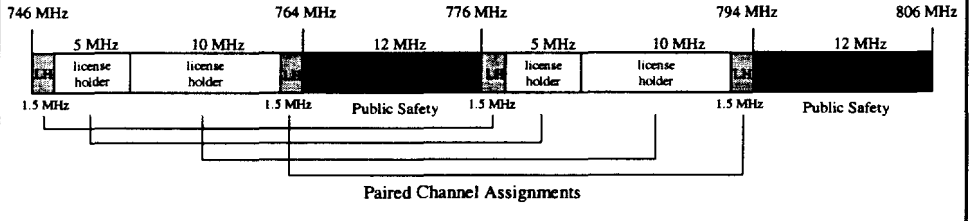
Motorola Band Plan – Consistent with US WEST



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Design Issue 2: National License or National Bid

- History of cellular and PCS demonstrates efficiency of nationwide services
  - Large economies of scale and scope
    - Marketing service to consumers
    - Support for equipment solutions from manufacturers
    - Economies from nationwide service more important in 60-69 than in PCS, since only 36 MHz is offered, not 120 MHz
- A new national competitor is possible only if 20 MHz band is auctioned in a single license or allowing national bids
  - With individual bids on MEA licenses:
    - Incentive for demand reduction prevents nationwide winner
    - Exposure problem may prevent participation by nationwide bidders (e.g., MCI in PCS)
  - Auction efficiency and revenues are enhanced by national license or national bids

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Design Issue 2: National License or National Bid

- Alternatively, allow national bids without distorting the auction by enhancing the activity rule
  - National bidders are neither favored nor discouraged
  - Regional bidders are neither favored nor discouraged
- Enhanced activity rule prevents national bidder from exploiting "free rider" problem
  - Bidders submitting national bids are excluded from bidding on individual 20 MHz licenses in future rounds
  - Encourages national bidder to submit a national bid only if the synergies of a national footprint more than offset the loss in bidding flexibility
- Promotes efficiency by enabling a national winner if value of national license exceeds sum of individual license values

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Design Issue 3: Spectrum Cap

- Spectrum cap rules are currently necessary and efficient means to promote competition in CMRS markets
  - Excessive aggregation of spectrum in the hands of a few national carriers could preclude development of competing systems
  - Significant merger activities in wireless industry add to concern of market concentration
- FCC extended spectrum cap to certain SMR licenses because services using SMR technology are nearly identical to those offered using broadband PCS and cellular licenses
- Similarly, the 746-764 and 776-794 MHz bands can be used for mobile voice and data services nearly identical to the services using cellular, PCS, and SMR licenses

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Design Issue 3: Spectrum Cap

- Spectrum cap can assure that the allocation will lead to at least one new national entrant
- Spectrum cap is essential if a simultaneous ascending auction is used
  - In an ascending auction, tentative winners must be identified after each bidding round
  - Need a bright-line test to determine if tentative winners are eligible to win on a round-by-round basis
- Limiting spectrum cap to 20MHz band (exempting the 10 MHz band from the cap) allows larger carriers and incumbents to meet needs for 3G transition and additional capacity

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Design Issue 3: Spectrum Cap

- Alternative to cap is to exclude nationwide providers (AT&T, Bell Atlantic/Air Touch, and Sprint) from bidding on national license, or bidding on 20 MHz band in markets where they have 30 MHz or more of CMSR if bids by REAG or MEA are possible on the 20 MHz band
- Three national competitors (AT&T, Bell Atlantic/Air Touch, and Sprint) may be insufficient for vigorous competition
- FCC should err on the side of too many competitors, rather than too few
- If market can only efficiently support three competitors (which is inconsistent with my understanding of the economics), then a merger (years after the auction) would be possible after review by the FCC and DOJ

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Design Issue 4: Incumbent Broadcasters

- Broadcasters have demonstrated that UHF analog TV is not the efficient use of channels 60-69
  - Few instances of channels 60-69 in operation, even in major cities
    - New York City: none in operation
    - Dallas: none in operation
    - Detroit: Channel 62 (WWJ)
    - Houston: Channel 61 (KZJL)
    - Washington: none in operation
  - Value of UHF analog TV is falling as other alternatives are expanding
    - Cable, DBS, DTV
  - Value of wireless communications services is growing rapidly in digital economy
  - However, incumbent broadcasters can cause severe interference to low-power entrants
    - A single UHF station can cause interference over 18 MHz in a 100 mile radius

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Design Issue 4: Incumbent Broadcasters

- Cannot use efficient relocation techniques as in PCS
  - Broadcasters have "right to stay"; relocation must be voluntary
  - No space to relocate in UHF band, since used for DTV
- Private market-based solution exists (and can be implemented independent of FCC)
  - Private market gets (most) broadcasters to commit before the auction to terminate after a specified number of years
  - Incumbent receives the market value of an "option to terminate" plus a payment the incumbent determines before the auction for terminating after specified number of years
  - Since private market is outside of the FCC, the market for termination options can be developed by private parties in the time available

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Conclusions

- *"Make markets work better!"*
- Adopt band plan of
  - single 20 MHz national license (or allow national bid)
  - 10 MHz REAG or MEA licenses
  - 6 MHz for services capable of protecting public safety operations
- 20 MHz nationwide license (or national bid) allows a viable new entrant
  - Entrant has the efficiencies of a national system
  - Entrant can offer innovative voice and data offerings in competition with the few national wireless competitors
  - Entrant provides alternatives to incumbent wireline voice and data services
- Spectrum cap on the 20 MHz national license ensures the most efficient use of spectrum
  - Exemption from the cap of the 10 MHz band provides spectrum needed for 3G and added capacity for large carriers and incumbents
- Adopt rules that encourage efficient termination of incumbent broadcasters

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